

NO:24, SEQ ID NO:28, SEQ ID NO:32, SEQ ID NO:36, SEQ ID NO:40, SEQ ID NO:44, SEQ ID NO:48, SEQ ID NO:52, SEQ ID NO:56, SEQ ID NO:60, or SEQ ID NO:64.

G  
F  
1  
24. (New) The polypeptide of claim 22, wherein the functional variant of the V<sub>H</sub> region is SEQ ID NO:2, SEQ ID NO:6, SEQ ID NO:10, SEQ ID NO:14, SEQ ID NO:18, SEQ ID NO:22, SEQ ID NO:26, SEQ ID NO:30, SEQ ID NO:34, SEQ ID NO:38, SEQ ID NO:42, SEQ ID NO:46, SEQ ID NO:50, SEQ ID NO:54, or SEQ ID NO:62.

25. (New) The polypeptide of claim 22, wherein the polypeptide is an antigen binding Fab fragment.

26. (New) The polypeptide of claim 22, wherein the polypeptide is an immunoglobulin specific for a Rhesus D antigen.

27. (New) The polypeptide of claim 26, wherein the immunoglobulin comprises at least one of the defined isotypes selected from the group consisting of IgG1, IgG2, IgG3, and IgG4.

28. (New) A recombinant polynucleotide which encodes the polypeptide of claim 22.

29. (New) A pharmaceutical composition comprising at least one polypeptide of claim 22.

30. (New) A pharmaceutical composition comprising at least one immunoglobulin of claim 26.

31. (New) A diagnostic composition for Rhesus D typing comprising at least one polypeptide of claim 22.

32. (New) A diagnostic composition for Rhesus D typing

comprising at least one antibody of claim 26.

33. (New) A purified polypeptide capable of forming antigen binding structures with specificity for Rhesus D antigens comprising a V<sub>H</sub> region and a V<sub>L</sub> region having SEQ ID NO:60 or a functional variant thereof.

34. (New) The polypeptide of claim 33, wherein the V<sub>H</sub> region is SEQ ID NO:2, SEQ ID NO:6, SEQ ID NO:10, SEQ ID NO:14, SEQ ID NO:18, SEQ ID NO:22, SEQ ID NO:26, SEQ ID NO:30, SEQ ID NO:34, SEQ ID NO:38, SEQ ID NO:42, SEQ ID NO:46, SEQ ID NO:50, SEQ ID NO:54, SEQ ID NO:58, or SEQ ID NO:62.

F1  
G1  
35. (New) The polypeptide of claim 33, wherein the functional variant of the V<sub>L</sub> region is SEQ ID NO:4, SEQ ID NO:8, SEQ ID NO:12, SEQ ID NO:20, SEQ ID NO:24, SEQ ID NO:28, SEQ ID NO:32, SEQ ID NO:36, SEQ ID NO:40, SEQ ID NO:44, SEQ ID NO:48, SEQ ID NO:52, SEQ ID NO:56, or SEQ ID NO:64.

36. (New) The polypeptide of claim 33, wherein the polypeptide is an antigen binding Fab fragment.

37. (New) The polypeptide of claim 33, wherein the polypeptide is an immunoglobulin specific for a Rhesus D antigen.

38. (New) The polypeptide of claim 37, wherein the immunoglobulin comprises at least one of the defined isotypes selected from the group consisting of IgG1, IgG2, IgG3, and IgG4.

39. (New) A recombinant polynucleotide which encodes the polypeptide of claim 33.

40. (New) A pharmaceutical composition comprising at least one

polypeptide of claim 33.

41. (New) A pharmaceutical composition comprising at least one antibody of claim 33.

42. (New) A diagnostic composition for Rhesus D typing comprising at least one polypeptide of claim 33.

43. (New) A diagnostic composition for Rhesus D typing comprising at least one antibody of claim 33.

44. (New) A method for preventing or treating a hematologic disorder in a subject comprising administering to the subject a pharmaceutical composition comprising at least one of the following

- (a) a purified polypeptide capable of forming antigen binding structures with specificity for Rhesus D antigens comprising a V<sub>H</sub> region having SEQ ID NO:58 or a functional variant thereof and a V<sub>L</sub> region;
- (b) a purified polypeptide capable of forming antigen binding structures with specificity for Rhesus D antigens comprising a V<sub>H</sub> region and a V<sub>L</sub> region having SEQ ID NO:60 or a functional variant thereof;
- (c) an immunoglobulin specific for a Rhesus D antigen comprising a purified polypeptide having a V<sub>H</sub> region having SEQ ID NO:58 or a functional variant thereof and a V<sub>L</sub> region; or
- (d) an immunoglobulin specific for a Rhesus D antigen comprising a purified polypeptide having a V<sub>H</sub> region and a V<sub>L</sub> region having SEQ ID NO:60 or a functional variant thereof;

wherein the hematologic disorder is haemolytic disease of the newborn (HDN), immune thrombocytopenic purpura (ITP), or mistransfusion of Rhesus incompatible blood.